ABSTRACT

Novel methods of controlling the temperature of an exothermic reaction are

disclosed. Such methods are particularly applicable to a Fischer-Tropsch synthesis
reaction, and comprise removing a vapor phase product from the Fischer-Tropsch
reactor, condensing at least a portion of the vapor phase product to form a volatilizable
liquid, and injecting at least a portion of the volatilizable liquid into the reactor, wherein
the volatilizable liquid comprises hydrocarbons that are in the highest boiling point range
of the vapor phase product that is removed from the reactor.